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10/694,855

10/29/2003

Ki-Man Kim

116511-00119

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7590

12/11/2006

EXAMINER

SNIDER, THERESA T

BLANK ROME LLP

600 NEW HAMPSHIRE AVENUE, N.W.  
WASHINGTON, DC 20037

ART UNIT

PAPER NUMBER

1744

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/694,855

Applicant(s)

KIM ET AL.

Examiner

Theresa T. Snider

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/21/06</u> | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Specification*

1. The use of the trademark 'VELCRO' (pages 6 and 8) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

2. The disclosure is objected to because of the following informalities:

Page 7, line 6, 'mail' should be replaced with 'male'.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Exemplary of such:

Claim 1, line 11, it is unclear as to whether 'a dust suction port' is in addition to the 'dust suction portion' of line 8 or one in the same.

Claim 2, line 5, it is unclear as to whether the 'a wet cloth' is in addition to the 'at least one cleaning pad' of claim 1 or one in the same.

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Claim 10, line 3, 'robot cleaner' should be replaced with 'cleaner body'.

***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by WO00/78198.

WO00/78198 discloses a robot cleaner body (fig. 2, #1).

WO00/78198 discloses a control unit programmed to run the cleaner body (fig. 2, C).

WO00/78198 discloses a driving portion (fig. 2, #25).

WO00/78198 discloses a dust suction portion (fig. 2, 1d, 1e).

WO00/78198 discloses a rotatable wet cloth cleaning unit including at least one cleaning pad detachably located adjacent the dust suction portion (fig. 2, #13, 1d).

With respect to claim 2, WO00/78198 discloses a rotatable wet cloth cleaning unit body, a rotary body, a rotation drive means and a drive force transmitting unit (page 7, lines 22-31).

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of WO00/78198.

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Lee discloses a similar cleaner however fails to disclose a control unit to cause the body to run automatically or a wet cloth.

Lee discloses a body (fig. 1, #1). WO00/78198 discloses a robot cleaner having a body with a control unit, a driving unit, a dust suction portion and a cloth cleaning unit (fig. 2, #1,C,25,1d,13). It would have been obvious to one of ordinary skill in the art to provide the control unit and single housing of WO00/78198 in Lee to provide for a cleaner that may be automatically propelled along a surface.

WO00/78198 discloses a robot cleaner body (fig. 2, #1).

WO00/78198 discloses a control unit programmed to run the cleaner body (fig. 2, C).

WO00/78198 discloses a driving portion (fig. 2, #25).

Lee discloses a dust suction portion (fig. 4, unnumbered area opposed horizontal arrows).

Lee discloses a rotatable cloth cleaning unit including at least one cleaning pad detachably located adjacent the dust suction portion (fig. 4, #60,30a). WO00/78198 discloses a wet cloth (col. 7, line 22). It would have been obvious to one of ordinary skill in the art to provide the wet cloth of WO00/78198 in Lee to clean stubborn dirt such as foreign substances stuck on a floor surface to be cleaned.

With respect to claim 2, Lee discloses the cloth cleaning unit having a body, rotary body, rotation driving means and a drive force transmitting unit (fig. 8, #30,50,40).

With respect to claim 3, Lee discloses the rotation driving means including a bi-directional motor with a pair of rotation axes (fig. 8, #50) and the drive force transmitting unit having a worm wheel gear portion with a worm gear member, an engaging portion and a support portion (figs. 2-3, #40,41,42).

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With respect to claim 4, Lee discloses the engaging portion having a male thread (col. 5, lines 24-47).

With respect to claims 5-6, Lee discloses rotation of the rotation axes in either a clockwise or counterclockwise direction (col. 5, lines 39-46).

With respect to claim 7, Lee discloses the engaging portion and the support portion supported on a support bracket (fig. 2, #13,51).

With respect to claim 8, Lee discloses the support bracket having a seating hole pierced there through (fig. 2, unnumbered hole in #13).

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO00/78198 as applied to claim 1 above, and further in view of Sako et al..

WO00/78198 discloses a similar cleaner however fails to disclose a rotatable brush.

Sako et al. discloses a cleaner having a dust suction portion, a cloth and a rotatable brush (fig. 3, #4b,8). It would have been obvious to one of ordinary skill in the art to provide the rotatable brush of Sako et al. in WO00/78198 to allow for effective removal of heavy dirt from a surface.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of WO00/78198 as applied to claim 1 above, and further in view of Sako et al..

Lee in view of WO00/78198 discloses a similar cleaner however fails to disclose a rotatable brush.

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Sako et al. discloses a cleaner having a dust suction portion, a cloth and a rotatable brush (fig. 3, #4b,8). It would have been obvious to one of ordinary skill in the art to provide the rotatable brush of Sako et al. in Lee in view of WO00/78198 to allow for effective removal of heavy dirt from a surface.

11. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO00/78198 in view of Sako et al..

WO00/78198 discloses a similar cleaner however fails to disclose a rotatable brush.

WO00/78198 discloses a robot cleaner body (fig. 2, #1).

WO00/78198 discloses a control unit programmed to run the cleaner body (fig. 2, C).

WO00/78198 discloses a driving portion (fig. 2, #25).

WO00/78198 discloses a dust suction portion (fig. 2, 1d,1e). Sako et al. discloses a cleaner having a dust suction portion, a cloth and a rotatable brush (fig. 3, #4b,8). It would have been obvious to one of ordinary skill in the art to provide the rotatable brush of Sako et al. in WO00/78198 to allow for effective removal of heavy dirt from a surface.

WO00/78198 discloses a rotatable wet cloth cleaning unit including at least one cleaning pad detachably located adjacent the dust suction portion (fig. 2, #13,1d).

With respect to claim 11, WO00/78198 discloses a plurality of pads (fig. 2, #14,1e,1d).

12. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of WO00/78198 and Sako et al..

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Lee discloses a similar cleaner however fails to disclose a control unit to cause the body to run automatically, a wet cloth or a rotatable brush.

Lee discloses a body (fig. 1, #1). WO00/78198 discloses a robot cleaner having a body with a control unit, a driving unit, a dust suction portion and a cloth cleaning unit (fig. 2, #1,C,25,1d,13). It would have been obvious to one of ordinary skill in the art to provide the control unit and single housing of WO00/78198 in Lee to provide for a cleaner that may be automatically propelled along a surface.

WO00/78198 discloses a robot cleaner body (fig. 2, #1).

WO00/78198 discloses a control unit programmed to run the cleaner body (fig. 2, C).

WO00/78198 discloses a driving portion (fig. 2, #25).

Lee discloses a dust suction portion (fig. 4, unnumbered area opposed horizontal arrows).

Sako et al. discloses a cleaner having a dust suction portion, a cloth and a rotatable brush (fig. 3, #4b,8). It would have been obvious to one of ordinary skill in the art to provide the rotatable brush of Sako et al. in Lee in view of WO00/78198 to allow for effective removal of heavy dirt from a surface.

Lee discloses a rotatable cloth cleaning unit including at least one cleaning pad detachably located adjacent the dust suction portion (fig. 4, #60,30a). WO00/78198 discloses a wet cloth (col. 7, line 22). It would have been obvious to one of ordinary skill in the art to provide the wet cloth of WO00/78198 in Lee to clean stubborn dirt such as foreign substances stuck on a floor surface to be cleaned.

With respect to claim 11, Lee discloses a plurality of pads (fig. 2, 360). WO00/78198 discloses a plurality of pads (fig. 2, #14,1e,1d).



***Response to Arguments***

13. Applicant's arguments filed 9/27/2006 have been fully considered but they are not persuasive. Applicant argues WO00/0078198 fails to disclose a cleaning pad. This argument is not persuasive because read broadly, a pad, is a piece of cloth. WO00/0078198 discloses a piece of cloth (page 7, line 22).

Applicant argues WO00/0078198 fails to disclose a wet cleaning unit located adjacent a dust suction port. This argument is not persuasive because WO00/0078198 discloses the cleaning unit adjacent the suction port (fig. 2, #13,1d).

Applicant argues Lee fails to disclose a cloth cleaning unit located adjacent a suction port. This argument is not persuasive because Lee discloses a cloth cleaning unit located adjacent a suction port (fig. 4, #60, unnumbered element with opposed horizontal arrows).

Applicant argues neither WO00/0078198 nor Lee disclose a cloth cleaning unit located adjacent a to rotatable brush. This argument is moot in view of the new grounds of rejection.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. WO02/062194 discloses a robot cleaner having a wet cloth located adjacent a suction port.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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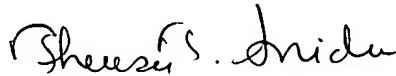
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa T. Snider whose telephone number is (571) 272-1277. The examiner can normally be reached on Monday-Friday (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**THERESA T. SNIDER  
PRIMARY EXAMINER**

Theresa T. Snider  
Primary Examiner  
Art Unit 1744

12/7/06